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ABSTRACT

Seven activities designed to teach kindergarten students about animals are offered in this unit. Instructions for each activity include a behavioral objective, materials needed, step-by-step procedures, and an evaluation suggestion. Topics of the activities are: (1) characteristics that distinguish animals from other living organisms (including the fact that people are one type of animal); (2) the fact that all animals are born from an egg; (3) five things that most animals need in order to grow; (4) types of shelters that animals live in; (5) kinds of animals that live in the sea or on the seashore; (6) characteristics of insects; and (7) characteristics of spiders. A cautionary note about poisonous spiders and a 19-item bibliography of books on animals conclude the unit. (DC)

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KINDERGARTEN SCIENCE UNIT ON ANIMALS

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What Is an Animal?

Objective:

The student will be able to (1) distinguish animals from other living organisms and (2) state that people are one type of animal.

Materials:

Pictures of plants such as flower, grass, tree; pictures of animals such as dog, horse, grasshopper

Procedure:

1. Display the pictures in random order and discuss the names of the things depicted.
2. Ask the students to tell you how all these things are alike. (Do not reject any plausable answers such as they all have names or they all can be found in our city, but elicit from the students that these things are all alive.)
3. Ask the students to separate the pictures into two groups that contain similar things. You may need to help them get started by saying, "Let us divide these things into two groups. If I place the horse in one group, what other living things do you see that are like the horse?"
4. When the groups are separated, ask the students to name each group of living things. They should respond appropriately with animals and plants.
5. Ask the students to tell you how animals are different from plants. Responses should include: ability to move voluntarily, ability to make sounds, ability to see.
6. Ask the students if they can do these things also (move, speak, see). Then ask if they are more like animals or plants. Tell them that there are many different types of animals, and people are one kind of animal.

Evaluation:

Show a picture to each student and let him/her decide if it is an animal or a plant. When asked the question, "Are people animals or plants?" the student should respond "animals."

Where Do Animals Come From?

Objective:

The student will be able to state that all animals are born from an egg.

Materials:

Pictures of a variety of eggs (bird, reptile, fish); a raw egg, clear dish or container; egg incubator (available from the county agent in most areas)

Procedure

1. Display pictures of eggs and tell students the following information. All animals started life as an egg from their mothers. In some animals we do not see the eggs because they are inside of the mother. These animals include dogs, elephants, pigs, and people; babies are born alive from these animals. In other animals, the mothers will make an egg that will grow into a baby animal. These animals include turtles, fish, and chickens.

2. Discuss the pictures of eggs telling the students what kind of animal produced each. Stress that all eggs are not the same size. For example, it would take 20 chicken eggs to be as big as one ostrich egg.

3. Pass around a raw egg, telling the children to handle it carefully. When all the children have held the egg, crack it into a clear container so the children can see the different parts: shell, white, and yolk. Explain that this is a chicken egg, but you can not yet see the baby chicken inside the egg.

4. Have the county agent come and set up the egg incubator. In the days that follow, the children will be able to experience the development of the eggs and then watch the eggs hatch into chicks!

Evaluation:

When asked, "What are all animals born from?" the student should respond "from an egg." If the student answers that all animals are born from mothers, say, "Yes, and what does the mother make that grows into a baby animal?"

What Do Animals Need to Grow?

Objective:

The student will be able to name four of the five things that most animals need in order to grow (food, water, air, sleep, exercise).

Materials:

Picture book about pets

Procedure:

1. Ask the students if any of them have pets. Spend a few minutes talking about their pets and then read the book about pets.

2. Ask the students to name some things that pets and other animals need in order to grow and live healthy lives. Elicit that animals need food, water, air, sleep, and exercise.

3. Say, "Do your parents make sure that you have food to eat and milk or water to drink every day? Do you run and play to exercise your body? Do you go to sleep at night, and do you breathe air all the time, even when you are asleep?" Help the children to generalize that they need the same things as all other animals in order to grow and live healthy lives.

Evaluation:

When asked, "What do animals need in order to grow?" the student should be able to name at least four of the five requirements: food, water, air, sleep, and exercise.

Where Do Animals Live?

Objective:

Given the name of an animal, the student will be able to name or describe the type of home (shelter) it lives in.

Materials:

Book or filmstrip about various animals and their habitats; examples of animals' "homes" such as bird nest, bee hive, wasp nest; picture of animals on a farm

Procedure:

1. Tell the students that they already know about some of the things that animals need to grow. There is one more thing that animals need in order to live, and that is a home or some kind of shelter.
2. Discuss the term shelter and why it is important: to keep safe, to store food, to protect young ones, to get out of bad weather, to have a place to sleep.
3. Tell the students that people live in houses. If they have pet animals, these animals can live in the house or perhaps in a special place provided for them (dog house, bird cage).
4. Display the picture of the animals on the farm, and tell the students that some animals live on farms. Ask them to name these animals (cow, chicken, pig, horse).
5. Tell the students that though pets and farm animals have homes provided for them, most animals have to make or find their own homes. Show the book or filmstrip, telling students to look for the types of homes that these animals have. Afterwards, discuss what they have seen. Some examples might be a bird nest, bee hive, beaver dam, ant hill, bear cave, rabbit burrow.
6. Display any examples of animals' homes that you have.

Evaluation:

Give each student an opportunity to respond by naming an animal discussed in the lesson and letting the child name or describe the type of home (shelter) it lives in.

What Kind of Animals Live in the Sea?

Objective:

The student will be able to name three kinds of animals that live in the sea or on the seashore.

Materials:

Various seashells, dried aquatic animals such as a seahorse, starfish, blowfish; pictures of sea animals

Procedure:

1. Tell the children that many different kinds of animals make their home in the sea. Ask the students to name some examples.
2. Display the dried aquatic animals, giving the names of each animal and saying that these animals once lived in the sea, but are now dead.
3. Display pictures of other animals that live in the sea or on the seashore such as octopus, whale, eel, dolphin, crab, snail, clam.
4. Display the shells and tell the children that small animals once lived in these shells. The shells were their homes that they carried around with them. Sometimes, when these small animals die or leave their shells, other animals like the Hermit Crab will use them as their homes.

Evaluation:

Ask the student to name at least three animals that live in the sea or on the seashore.

What Are Insects?

Objective:

The student will be able to identify an insect by determining whether or not it has six legs and two feelers on its head.

Materials:

Book or filmstrip on insects; examples of insects that have been collected by the children; clear plastic containers with lids

Procedure:

1. Take a walk around the school yard and collect a variety of "bugs" in nonbreakable, clear containers, such as plastic cups covered with plastic wrap and a rubber band. (Children who are allergic to insect bites should be given an alternate activity inside.)
2. Tell the students that there is a special name for certain kinds of little animals, and this name is insect. All insects have six legs and two feelers (antennae) on the head. Most insects also have wings.
3. Show the students a large picture of an insect from the book or filmstrip, and have them count the legs and feelers as you point them out.
4. Tell the students that there are many different kinds of insects, and you want to decide if the little animals you have collected are true insects. Ask the children to inspect them to see if they have six legs and two feelers on the head.
5. Let each child say whether his/her little animal is an insect or not. Examples of insects that the children may find are: ant, bee, beetle, butterfly, cricket, dragonfly, fly, katydid, ladybug, locust, mosquito, moth, praying mantis, roach, termite, wasp. Examples of other little animals that are not true insects are: centipede, spider, worm.
6. Tell the students that there are more insects in the world than any other kind of animal—even people! But they are so small that we do not notice them all the time.

Evaluation:

The student will be able to tell whether or not a specimen is an insect.

What Are Spiders?

Objective:

Given a specimen of an insect and a specimen of a spider, the student will be able to distinguish the spider based on the criteria of number of legs and absence of feelers and wings.

Materials:

Picture of a spider; live spider; large clear container to be used as a terrarium; porous lid for terrarium; dirt and plants; picture of insect

Procedure:

1. Show the students the picture of the insect from the previous lesson, and review the distinguishing criteria of having two feelers and six legs.
2. Tell the students that there is another group of very small animals called spiders. Spiders do not have wings or feelers, and they have eight legs. Most spiders have the ability to spin and weave a web that they use to catch insects to eat.
3. Display the picture of the spider next to that of the insect and compare similarities and differences, such as number of legs and absence or presence of feelers and wings.
4. Take the children to the school yard to collect some dirt and small plants or weeds to make a terrarium. Place dirt in the bottom of the container, secure the roots of the plants in the dirt and water. Put in the live spider and some of the smaller insects from the previous lesson. Place a secure but porous lid over the terrarium.
5. Tell the children to watch to see if the spider will spin a web. (Not all do.)
6. After the spider has made a web and begins to catch the insects, tell the students that spiders are very helpful to people, for they eat many of the harmful insects that would eat up the farmers' crops.

Evaluation:

When shown a specimen of a spider and a specimen of an insect, the student should be able to identify the spider, giving reasons for this decision.

Please note: Children should be cautioned not to handle spiders as there are two species of poisonous spiders in North America—black widow and brown recluse. The black widow is glossy black with a brilliant red or yellow hourglass-shaped marking on the underside of the abdomen; it is seldom more than one-half inch long and is usually found in cool, dry, dark places. The brown recluse is a small brown spider about three-eighths inch long; it is quite timid and not likely to be spotted in the open.

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